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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,222	12/31/2003	Valerie Guralnik	256.186US1	6645

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EXAMINER
BHAT, ADITYA S

ART UNIT	PAPER NUMBER
2863	

MAIL DATE	DELIVERY MODE
09/11/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

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<tr><td rowspan="2"></td><td colspan="2" align="center">Application No.</td><td colspan="2" align="center">Applicant(s)</td></tr>
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<tr><td colspan="2">Aditya S. Bhat</td><td colspan="2">2863</td><td></td></tr>
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>20 June 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-28 and 30-33</u> is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>4,5,7,10-14,19,20 and 23-27</u> is/are allowed.

6)☒ Claim(s) <u>1-3,6,8,9,15-18,21,22,28 and 30-33</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>31 December 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All   b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 6,8-9,15-18, 21-22, 28 and 30-33 are rejected under 35

U.S.C. 102(e) as being anticipated by Rose-Pehrsson et al. (USPN 7,034,701).

With regards to claims 1 and 16, Rose-Pehrsson et al. (USPN 7,034,701)

teaches a system and a computer implemented method of identifying events in a

process, comprising:

running a principal component analysis (Col. 5, lines 61-62)model on sensor

data from the process;(col. 5, line 25)(col. 6, lines 14-15)

calculating statistics related to the model; (col. 6, lines 8-10 & 42-44)

determining if an event(fire) is occurring; (Col.7, lines 43-45) and

finding a nearest cluster of bad actors related to the event to identify the event.

(Col. 6, lines 16-27)

storing the found nearest cluster of bad actors in a storage device.(col.7,lines 25-

26)

It should be noted that the term "bad actors" & "event" has not been explicitly

defined in the specification, and is therefore given the broadest reasonable

interpretation.

With regards to claim 30, Rose-Pehrsson et al.. (USPN 7,034,701) teaches a

system and a computer implemented method of identifying events in a process,

comprising:

running a principal component analysis (Col. 5, lines 61-62)model on sensor

data from the process;(col. 5, line 25)(col. 6, lines 14-15)

calculating statistics related to the model; (col. 6, lines 8-10 & 42-44)

determining if an event(fire) is occurring (Col.7, lines 43-45) as a function of one

or more process states being outside of a normal range (col. 6, lines 38-41) and

finding a nearest cluster of bad actors related to the event to identify the process

event. (Col. 6, lines 16-27)

storing the found nearest cluster of bad actors in a storage device.(col.7,lines 25-

26)

With regards to claim 31, Rose-Pehrsson et al. (USPN 7,034,701) teaches a

computer implemented method of identifying events in a process, the method

comprising:

running a principal component analysis model (Col. 5, lines 61-62) on a computer

on sensor data representative of multiple process parameters in the process; (col. 5,

line 25)(col. 6, lines 14-15)

calculating statistics related to the model; (col. 6, lines 8-10 & 42-44)

determining if an event is occurring in the process; (Col.7, lines 43-45) and

finding a nearest cluster of bad actors related to the event to identify the event,

(Col. 6, lines 16-27) wherein an event consists of one or more process parameters

being out of a normal range in one or more parts of the process. (col. 3, lines 50-54)

With regards to claims 2 and 17, Rose-Pehrsson et al. (USPN 7,034,701)

teaches a nearest cluster of bad actors comprises comparing the bad actor vectors to

known clusters in a library of clusters for bad actors. (Col. 2, lines 9-20)

With regards to claims 3 and 18, Rose-Pehrsson et al. (USPN 7,034,701)

teaches identifying a sequence of cluster matches; and correlating the sequence of

cluster matches to known events. (col.6,lines 15-27)

With regards to claim 6, Rose-Pehrsson et al. (USPN 7,034,701) teaches a

cluster is limited to a predetermined number of bad actors. (col. 3, lines 37-40)

With regards to claims 8 and 21, Rose-Pehrsson et al. (USPN 7,034,701)

teaches the statistics comprise Q (residual error) and T2 (unusual variance)(Col. 3, line

63-67).

With regards to claims 9 and 22, Rose-Pehrsson et al. (USPN 7,034,701)

teaches using a scoring scheme to identify top contributors of bad actors. (Col. 6, lines

12-15)

With regards to claims 15 and 28, Rose-Pehrsson et al. (USPN 7,034,701)

teaches the feature scoring scheme is based on rank, value, and percent of contribution

to a Q-residual sensor to identify a relative importance. (Col. 6, lines 10-41)

With regards to claim 32, Rose-Pehrsson et al. (USPN 7,034,701) teaches multiple process parameters are out of normal range. (col. 3 lines 42-45)

With regards to claim 33, Rose-Pehrsson et al. (USPN 7,034,701) teaches one or more process parameters are measured by multiple sensors.(110;figure 1)

Allowable Subject Matter

Claims 4-5,7,10-14, 19-20 and 23-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 4-5,7, 11-14, 19-20 and 24-27:

The primary reason for the allowance of claims 4 and 19 is the inclusion of the method steps of: determining if a cluster needs to be split when new bad actors are added; and splitting the cluster into two clusters using a goodness of fit algorithm. It is this/these features found in the claim(s), as they are claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this/these claim(s) allowable over the prior art.

The primary reason for the allowance of claims 5 and 20 is the inclusion of the method steps of: determining if a new event category is encountered; and broadening limits for the sequence of clusters. It is this/these features found in the claim(s), as they are claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this/these claim(s) allowable over the prior art.

The primary reason for the allowance of claim 7 is the inclusion of the method steps of: predetermined number of bad actors is ten. It is this feature found in the claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

The primary reason for the allowance of claims 10 and 23 is the inclusion of: the feature scoring scheme is based on rank, value, and percent of contribution to a Q-residual sensor to identify a relative importance. It is this/these features found in the claim(s), as they are claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this/these claim(s) allowable over the prior art.

Claim 5 is allowed due to their dependency on claim 4.

Claims 11-14 are allowed due to their dependency on claim 10.

Claim 20 is allowed due to their dependency on claim 19.

Claims 24-27 are allowed due to their dependency on claim 23.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

Applicant's arguments with respect to claims 1-28 and 30-33 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Rose-Pehrsson et al. (USPUB 2006/0006997) teaches a

probabilistic neural network for multi-criteria fire detector.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Aditya S. Bhat whose telephone number is 571-272-

2270. The examiner can normally be reached on M-F between 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Barlow can be reached on 571-272-2269. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Aditya Bhat
August 29, 2007